

Aqueduct Water Risk



Tags

Global Maps, Water Withdrawals, Water Stress, Water Risk, Water Security, Variability, Aqueduct

Summary

The Aqueduct Water Risk Atlas makes use of a framework of 12 global indicators grouped into three categories of risk and one overall score. Aqueduct Global Maps 2.0 include indicators of water quantity, water variability, water quality, public awareness of water issues, access to water, and ecosystem vulnerability.

Description

Awareness around the physical, regulatory, and reputational water risks to companies and their investors is on the rise and robust, comparable and comprehensive data is needed to help assess these water-related risks. In response to this demand, the World Resources Institute developed the Aqueduct Water Risk Atlas, including 12 global indicators and maps of water-related risk. Companies can use this information to prioritize actions, investors to leverage financial interest to improve water management, and governments to engage with the private sector to seek solutions for more equitable and sustainable water governance.

The Aqueduct Water Risk Atlas makes use of a framework of 12 global indicators grouped into three categories of risk and one overall score. Aqueduct Global Maps 2.0 include indicators of water quantity, water variability, water quality, public awareness of water issues, access to water, and ecosystem vulnerability. The data used for the study were developed in consultation with experts and are publicly available. The details of the data, sources, and methodology are provided in the Aqueduct Global Maps 2.0 metadata document available online at <http://wri.org/publication/aqueduct-metadata-global>.

Credits

Suggested Citation: Gassert, F., M. Luck, M. Landis, P. Reig, and T. Shiao. 2013. "Aqueduct Global Maps 2.0." Working Paper. Washington, DC: World Resources Institute. Available online at <http://wri.org/publication/aqueduct-metadata-global>.

Use limitations

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Extent

West -116.050016 East -66.981005

North 49.369494 South 24.548326

Scale Range

Maximum (zoomed in) 1:5,000

Minimum (zoomed out) 1:150,000,000

ArcGIS Metadata ▶

Topics and Keywords ▶

* CONTENT TYPE Downloadable Data

Hide Topics and Keywords ▲

Citation ▶

TITLE Baseline Water Stress

PRESENTATION FORMATS * digital map

Hide Citation ▲

Resource Details ▼

Extents ▶

EXTENT

GEOGRAPHIC EXTENT

BOUNDING RECTANGLE

EXTENT TYPE Extent used for searching

* WEST LONGITUDE -116.050016

* EAST LONGITUDE -66.981005

* NORTH LATITUDE 49.369494

* SOUTH LATITUDE 24.548326

* EXTENT CONTAINS THE RESOURCE Yes

EXTENT IN THE ITEM'S COORDINATE SYSTEM

* WEST LONGITUDE -12918628.684200

* EAST LONGITUDE -7456291.414100

* SOUTH LATITUDE 2820367.838700

* NORTH LATITUDE 6337790.966800

* EXTENT CONTAINS THE RESOURCE Yes

Hide Extents ▲

Resource Constraints ▶

CONSTRAINTS

LIMITATIONS OF USE

The Aqueduct Global Maps 2.0database is licensed under a Creative Commons Attribution 3.0 (unported) License. <http://creativecommons.org/licenses/by/3.0/>

Hide Resource Constraints ▲

Spatial Reference ►

ARCGIS COORDINATE SYSTEM

- * TYPE **Projected**
- * GEOGRAPHIC COORDINATE REFERENCE **GCS_WGS_1984**
- * PROJECTION **WGS_1984_Web_Mercator_Auxiliary_Sphere**
- * COORDINATE REFERENCE DETAILS
 - PROJECTED COORDINATE SYSTEM
 - WELL-KNOWN IDENTIFIER **102100**
 - X ORIGIN **-22041545.196626503**
 - Y ORIGIN **-33272760.666300893**
 - XY SCALE **135368852.55357128**
 - Z ORIGIN **-100000**
 - Z SCALE **10000**
 - M ORIGIN **-100000**
 - M SCALE **10000**
 - XY TOLERANCE **0.001**
 - Z TOLERANCE **0.001**
 - M TOLERANCE **0.001**
 - HIGH PRECISION **true**
 - LATEST WELL-KNOWN IDENTIFIER **3857**
 - WELL-KNOWN TEXT **PROJCS["WGS_1984_Web_Mercator_Auxiliary_Sphere",GEOGCS["GCS_WGS_1984",DATUM["D_WGS_1984",SPHEROID["WGS_1984",6378137.0,298.257223563]],PRIMEM["Greenwich",0.0],UNIT["Degree",0.0174532925199433]],PROJECTION["Mercator_Auxiliary_Sphere"],PARAMETER["False_Easting",0.0],PARAMETER["False_Northing",0.0],PARAMETER["Central_Meridian",0.0],PARAMETER["Standard_Parallel_1",0.0],PARAMETER["Auxiliary_Sphere_Type",0.0],UNIT["Meter",1.0],AUTHORITY["EPSG",3857]]**

REFERENCE SYSTEM IDENTIFIER

- * VALUE **3857**
- * CODESPACE **EPSG**
- * VERSION **8.2.6**

Hide Spatial Reference ▲

Spatial Data Properties ►

VECTOR ►

- * LEVEL OF TOPOLOGY FOR THIS DATASET **geometry only**

GEOMETRIC OBJECTS

- FEATURE CLASS NAME **baseline_water_stress_wri**
- * OBJECT TYPE **composite**
- * OBJECT COUNT **823**

Hide Vector ▲

ARCGIS FEATURE CLASS PROPERTIES ►

- FEATURE CLASS NAME **baseline_water_stress_wri**
- * FEATURE TYPE **Simple**
- * GEOMETRY TYPE **Polygon**
- * HAS TOPOLOGY **FALSE**
- * FEATURE COUNT **823**
- * SPATIAL INDEX **TRUE**
- * LINEAR REFERENCING **FALSE**

[Hide ArcGIS Feature Class Properties ▲](#)

[Hide Spatial Data Properties ▲](#)

Geoprocessing history ▼

Distribution ►

DISTRIBUTION FORMAT

* NAME File Geodatabase Feature Class

[Hide Distribution ▲](#)

Fields ►

DETAILS FOR OBJECT [baseline_water_stress_wri ►](#)

* TYPE Feature Class

* ROW COUNT 823

FIELD [Shape ►](#)

* ALIAS Shape

* DATA TYPE Geometry

* WIDTH 0

* PRECISION 0

* SCALE 0

* FIELD DESCRIPTION
Feature geometry.

* DESCRIPTION SOURCE
Esri

* DESCRIPTION OF VALUES
Coordinates defining the features.

[Hide Field Shape ▲](#)

FIELD [OBJECTID ►](#)

* ALIAS OBJECTID_1

* DATA TYPE OID

* WIDTH 4

* PRECISION 0

* SCALE 0

* FIELD DESCRIPTION
Internal feature number.

* DESCRIPTION SOURCE
Esri

* DESCRIPTION OF VALUES
Sequential unique whole numbers that are automatically generated.

[Hide Field OBJECTID ▲](#)

FIELD GU ▶

* ALIAS GU
* DATA TYPE Integer
* WIDTH 4
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION
ID Field

[Hide Field GU ▲](#)

FIELD BasinID ▶

* ALIAS BasinID
* DATA TYPE Integer
* WIDTH 4
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION
Hydrological Catchment ID Field

[Hide Field BasinID ▲](#)

FIELD COUNTRY ▶

* ALIAS COUNTRY
* DATA TYPE String
* WIDTH 510
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION
Country Name

[Hide Field COUNTRY ▲](#)

FIELD CATCHMENT ▶

* ALIAS CATCHMENT
* DATA TYPE String
* WIDTH 160
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION
Basin Name

[Hide Field CATCHMENT ▲](#)

FIELD WITHDRAWAL ▶

* ALIAS WITHDRAWAL
* DATA TYPE Double
* WIDTH 8
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Total Withdrawal (m3)

[Hide Field WITHDRAWAL ▲](#)

FIELD BA ►

- * ALIAS BA
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Available Blue Water (m3)

[Hide Field BA ▲](#)

FIELD BWS ►

- * ALIAS BWS
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Baseline Water Stress - Indicator Raw Values

[Hide Field BWS ▲](#)

FIELD BWS_s ►

- * ALIAS BWS_s
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Baseline Water Stress - Indicator Scores

[Hide Field BWS_s ▲](#)

FIELD BWS_cat ►

- * ALIAS BWS_cat
- * DATA TYPE String
- * WIDTH 52
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Baseline Water Stress - Indicator Legend Labels

[Hide Field BWS_cat ▲](#)

FIELD WSV ►

- * ALIAS WSV
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Interannual Variability - Indicator Raw Values

[Hide Field WSV ▲](#)

FIELD WSV_s ►

- * ALIAS WSV_s
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Interannual Variability - Indicator Scores

[Hide Field WSV_s ▲](#)

FIELD WSV_cat ►

- * ALIAS WSV_cat
- * DATA TYPE String
- * WIDTH 56
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Interannual Variability - Indicator Legend Labels

[Hide Field WSV_cat ▲](#)

FIELD SV ►

- * ALIAS SV
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Seasonal Variability - Indicator Raw Values

[Hide Field SV ▲](#)

FIELD SV_s ►

- * ALIAS SV_s
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Seasonal Variability - Indicator Scores

[Hide Field SV_s ▲](#)

FIELD SV_cat ►

- * ALIAS SV_cat
- * DATA TYPE String
- * WIDTH 56
- * PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Seasonal Variability - Indicator Legend Labels

[Hide Field SV_cat ▲](#)

FIELD HFO ▶

* ALIAS HFO

* DATA TYPE Double

* WIDTH 8

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Flood Occurrence - Indicator Raw Values

[Hide Field HFO ▲](#)

FIELD HFO_s ▶

* ALIAS HFO_s

* DATA TYPE Double

* WIDTH 8

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Flood Occurrence - Indicator Scores

[Hide Field HFO_s ▲](#)

FIELD HFO_cat ▶

* ALIAS HFO_cat

* DATA TYPE String

* WIDTH 46

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Flood Occurrence - Indicator Legend Labels

[Hide Field HFO_cat ▲](#)

FIELD DRO ▶

* ALIAS DRO

* DATA TYPE Double

* WIDTH 8

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Drought Severity - Indicator Raw Values

[Hide Field DRO ▲](#)

FIELD DRO_s ▶

* ALIAS DRO_s

* DATA TYPE Double

* WIDTH 8

*PRECISION 0

*SCALE 0

FIELD DESCRIPTION

Drought Severity - Indicator Scores

[Hide Field DRO_s ▲](#)

FIELD DRO_cat ►

*ALIAS DRO_cat

*DATA TYPE String

*WIDTH 50

*PRECISION 0

*SCALE 0

FIELD DESCRIPTION

Drought Severity - Indicator Legend Labels

[Hide Field DRO_cat ▲](#)

FIELD BT ►

*ALIAS BT

*DATA TYPE Double

*WIDTH 8

*PRECISION 0

*SCALE 0

FIELD DESCRIPTION

Total Blue Water (m3)

[Hide Field BT ▲](#)

FIELD STOR ►

*ALIAS STOR

*DATA TYPE Double

*WIDTH 8

*PRECISION 0

*SCALE 0

FIELD DESCRIPTION

Upstream Storage - Indicator Raw Values

[Hide Field STOR ▲](#)

FIELD STOR_s ►

*ALIAS STOR_s

*DATA TYPE Double

*WIDTH 8

*PRECISION 0

*SCALE 0

FIELD DESCRIPTION

Upstream Storage - Indicator Scores

[Hide Field STOR_s ▲](#)

FIELD STOR_cat ►

*ALIAS STOR_cat

*DATA TYPE String

* WIDTH 54
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Upstream Storage - Indicator Legend Labels

Hide Field STOR_cat ▲

FIELD GW ▶

* ALIAS GW
* DATA TYPE Double
* WIDTH 8
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Groundwater Stress - Indicator Raw Values

Hide Field GW ▲

FIELD GW_s ▶

* ALIAS GW_s
* DATA TYPE Double
* WIDTH 8
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Groundwater Stress - Indicator Scores

Hide Field GW_s ▲

FIELD GW_cat ▶

* ALIAS GW_cat
* DATA TYPE String
* WIDTH 48
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Groundwater Stress - Indicator Legend Labels

Hide Field GW_cat ▲

FIELD WRI ▶

* ALIAS WRI
* DATA TYPE Double
* WIDTH 8
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Return Flow Ratio - Indicator Raw Values

Hide Field WRI ▲

FIELD WRI_s ▶

* ALIAS WRI_s

* DATA TYPE Double
* WIDTH 8
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Return Flow Ratio - Indicator Scores

[Hide Field WRI_s ▲](#)

FIELD WRI_cat ►

* ALIAS WRI_cat
* DATA TYPE String
* WIDTH 52
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Return Flow Ratio - Indicator Legend Labels

[Hide Field WRI_cat ▲](#)

FIELD ECO_S ►

* ALIAS ECO_S
* DATA TYPE Double
* WIDTH 8
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Upstream Protected Land - Indicator Raw Values

[Hide Field ECO_S ▲](#)

FIELD ECO_S_s ►

* ALIAS ECO_S_s
* DATA TYPE Double
* WIDTH 8
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Upstream Protected Land - Indicator Scores

[Hide Field ECO_S_s ▲](#)

FIELD ECO_S_cat ►

* ALIAS ECO_S_cat
* DATA TYPE String
* WIDTH 52
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Upstream Protected Land - Indicator Legend Labels

[Hide Field ECO_S_cat ▲](#)

FIELD MC ►

* ALIAS MC
* DATA TYPE Double
* WIDTH 8
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Media Coverage - Indicator Raw Values

Hide Field MC ▲

FIELD MC_s ►

* ALIAS MC_s
* DATA TYPE Double
* WIDTH 8
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Media Coverage - Indicator Scores

Hide Field MC_s ▲

FIELD MC_cat ►

* ALIAS MC_cat
* DATA TYPE String
* WIDTH 56
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Media Coverage - Indicator Legend Labels

Hide Field MC_cat ▲

FIELD ECO_V ►

* ALIAS ECO_V
* DATA TYPE Double
* WIDTH 8
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Threatened Amphibians - Indicator Raw Values

Hide Field ECO_V ▲

FIELD ECO_V_s ►

* ALIAS ECO_V_s
* DATA TYPE Double
* WIDTH 8
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Threatened Amphibians - Indicator Scores

Hide Field ECO_V_s ▲

FIELD ECO_V_cat ▶

- * ALIAS ECO_V_cat
- * DATA TYPE String
- * WIDTH 54
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Threatened Amphibians - Indicator Legend Labels

[Hide Field ECO_V_cat ▲](#)

FIELD WCG ▶

- * ALIAS WCG
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Access to Water - Indicator Raw Values

[Hide Field WCG ▲](#)

FIELD WCG_s ▶

- * ALIAS WCG_s
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Access to Water - Indicator Scores

[Hide Field WCG_s ▲](#)

FIELD WCG_cat ▶

- * ALIAS WCG_cat
- * DATA TYPE String
- * WIDTH 50
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Access to Water - Indicator Legend Labels

[Hide Field WCG_cat ▲](#)

FIELD DEF_PQUAL ▶

- * ALIAS DEF_PQUAL
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Default Weight Physical Risk Quality

[Hide Field DEF_PQUAL ▲](#)

FIELD DEF_REGREP ▶

- * ALIAS DEF_REGREP
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Default Weight Regulatory and Reputational Risk

Hide Field DEF_REGREP ▲

FIELD W_SEMICO ▶

- * ALIAS W_SEMICO
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Default Semiconductor Sector Weight Overall Water Risk

Hide Field W_SEMICO ▲

FIELD DEFAULT ▶

- * ALIAS DEFAULT
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Default Weight Overall Water Risk

Hide Field DEFAULT ▲

FIELD W_CONSTR ▶

- * ALIAS W_CONSTR
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Default Construction Materials Sector Weight Overall Water Risk

Hide Field W_CONSTR ▲

FIELD W_CHEM ▶

- * ALIAS W_CHEM
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Default Chemical Sector Weight Overall Water Risk

Hide Field W_CHEM ▲

FIELD W_POWER ►

- * ALIAS W_POWER
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Default Power Sector Weight Overall Water Risk

Hide Field W_POWER ▲

FIELD W_MINE ►

- * ALIAS W_MINE
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Default Mining Sector Weight Overall Water Risk

Hide Field W_MINE ▲

FIELD W_OILGAS ►

- * ALIAS W_OILGAS
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Default Oil and Gas Sector Weight Overall Water Risk

Hide Field W_OILGAS ▲

FIELD DEF_PQUANT ►

- * ALIAS DEF_PQUANT
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Default Weight Physical Risk Quantity

Hide Field DEF_PQUANT ▲

FIELD W_AGR ►

- * ALIAS W_AGR
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Default Agriculture Sector Weight Overall Water Risk

[Hide Field W_AGR ▲](#)

FIELD W_FOODBV ▶

- * ALIAS W_FOODBV
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Default Food and Beverage Sector Weight Overall Water Risk

[Hide Field W_FOODBV ▲](#)

FIELD W_TEX ▶

- * ALIAS W_TEX
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Default Textile Sector Weight Overall Water Risk

[Hide Field W_TEX ▲](#)

FIELD Shape_Length ▶

- * ALIAS Shape_Length
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0
- * FIELD DESCRIPTION

Length of feature in internal units.

* DESCRIPTION SOURCE

Esri

* DESCRIPTION OF VALUES

Positive real numbers that are automatically generated.

[Hide Field Shape_Length ▲](#)

FIELD Shape_Area ▶

- * ALIAS Shape_Area
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0
- * FIELD DESCRIPTION

Area of feature in internal units squared.

* DESCRIPTION SOURCE

Esri

* DESCRIPTION OF VALUES

Positive real numbers that are automatically generated.

[Hide Field Shape_Area ▲](#)

[Hide Details for object baseline_water_stress_wri ▲](#)

[Hide Fields ▲](#)

Metadata Details ►

* METADATA LANGUAGE English (UNITED STATES)

SCOPE OF THE DATA DESCRIBED BY THE METADATA * dataset

SCOPE NAME * dataset

* LAST UPDATE 2015-03-19

ARCGIS METADATA PROPERTIES

METADATA FORMAT ArcGIS 1.0

STANDARD OR PROFILE USED TO EDIT METADATA FGDC

METADATA STYLE FGDC CSDGM Metadata

CREATED IN ARCGIS FOR THE ITEM 2015-03-11 14:23:11

LAST MODIFIED IN ARCGIS FOR THE ITEM 2015-03-19 12:55:50

AUTOMATIC UPDATES

HAVE BEEN PERFORMED Yes

LAST UPDATE 2015-03-19 12:34:49

[Hide Metadata Details ▲](#)

Thumbnail and Enclosures ►

THUMBNAIL

THUMBNAIL TYPE JPG

[Hide Thumbnail and Enclosures ▲](#)

FGDC Metadata (read-only) ▼